Dr. Prasanta Das
Tenure Faculty
Department of Textile Engineering
Veermata Jijabai Technological Institute (VJTI)
Matunga, Mumbai, Maharashtra-400019
+91 87777 97763
pdas@tx.vjti.ac.in / pdas.aijuni@gmail.com

AREAS OF SPECIALIZATION

- Yarn Manufacturing; Fabric Manufacturing; Textile Testing; Fiber Science
- Technical Textile; Medical Textile; Textile Filter; Antibacterial Textiles

ACADEMIC QUALIFICATIONS

Ph.D. in Textile Technology | 2025
Title: Design of Hernia Mesh using Natural Textile Materials
Institute: Dr. B R Ambedkar National Institute of Technology (NIT), Jalandhar
Supervisors: Dr. M. D. Roy and Dr. S. Ghosh

M. Tech in Textile Technology | 2019
Institute: Department of Jute and Fibre Technology, University of Calcutta
Project Title – *Standardization of Fire-Retardant Finishing of Jute and Cotton Fabrics*

B. Tech in Jute and Fibre Technology | 2017
Institute: Department of Jute and Fibre Technology, University of Calcutta
Project Title – *Insect Repellent Finishing on Cotton Fabric*

ACADEMIC & RESEARCH EXPERIENCE

Position	Institution	Duration	Key Responsibilities
Tenure Faculty	Veermata Jijabai Technological Institute (VJTI), Mumbai	Feb 2026 – Present	Teaching undergraduate and postgraduate courses, conducting research.
Assistant Professor	Panipat Institute of Engineering & Technology, Haryana	July 2024 – Jan 2026	Teaching UG courses, research supervision, curriculum development, and organizing conferences
Ph.D. Research Scholar	Dr. B R Ambedkar NIT Jalandhar	July 2019 – July 2024	Conducting research in medical textiles, publications, lab management, and conference presentation

RESEARCH PUBLICATIONS

International Journals

1. **Prasanta Das,** Manas Datta Roy, and Subrata Ghosh (2023), "Study on the Hydrophobicity and Antibacterial Activity of Silica Sol-Chitosan-HDTMS Treated Cotton Fabric Dipped in an Aquas Media", *Tekstilec*, 66(1), 1-14. https://doi.org/10.14502/tekstilec.65.2022094 (ESCI Indexed)

2. **Prasanta Das,** Manas Datta Roy, and Subrata Ghosh (2023), "Hydrophobicity and antibacterial property of silica sol-chitosan-HDTMS treated silk fabric", *Indian Journal of Fibre & Textile Research (IJFTR),* 48(4), 442-449. https://doi.org/10.56042/ijftr.v48i4.7651 (SCIE Indexed)

3. **Prasanta Das,** Manas Datta Roy, and Subrata Ghosh (2023), "Development of hydrophobic surface on silk fabric by using silica nanoparticle finish", *Asian Textile Journal,* 32(8-9), pp. 21–23, 2023. (Scopus Indexed)

4. Subrata Ghosh, Kaliraj Balasubramaniam**, and Prasanta Das** (2022), "Design and Development of Wound Dressing by Using Commercial Antiseptic Liquid", *Journal of The Institution of Engineers (India): Series E.* https://doi.org/10.1007/s40034-022-00256-2

Book Chapters

1. **Prasanta Das,** Manas Datta Roy and Subrata Ghosh (2023), Implantable medical devices by using textile materials. In Subhankar Maity, Kunal Singha and Pintu Pandit (Eds.), *Functional and Technical Textiles*, First Edition, pp. 521–542, Elsevier Ltd. https://doi.org/10.1016/B978-0-323-91593-9.00024-9
2. **Prasanta Das**, Manas Datta Roy and Subrata Ghosh (2023), Textiles as wound care and implantable materials. In Sudev Dutta (Ed), *Functionality aspect of Technical Textiles in Interdisciplinary Sectors*, Springer (accepted).

Conference Publication

1. Prasanta Das, Manas Datta Roy, and Subrata Ghosh, "Development of hydrophobicity with antibacterial property on silk fabric by treated with chitosan and silica nanoparticle", 34th National Convention of Textile Engineers and National Seminar on "Innovative Textile Materials", Organized by The Institution of Engineers (India), the Kanpur local centre in association with the Textile Association (India) Uttar Pradesh, September 10-11th. 2022.

Conference Presentations

1. Manas Datta Roy, Prasanta Das, Subrata Ghosh, "Performance of silica sol–chitosan– HDTMS coated silk hernia mesh for biocompatibility and antimicrobial activity", International Conference at Kyoto University of Advanced Science, scheduled to take place on 11th–14th April 2025, Kyoto, Japan.
2. Prasanta Das, Nandan Kumar, Sudershan Dhamija, "Design and development of affordable bikers denim with high-performance and natural fibres", 4th International Conference on Functional Textiles & Clothing, scheduled to take place on 31st January - 2nd February 2025, IIT Delhi, New Delhi, India
3. Manas Datta Roy, Prasanta Das and Subrata Ghosh, "Development of Hydrophobic Cotton Fabric with Antibacterial Property Using Silica Sol, Chitosan and HDTMS", Future Textiles Conference on "Future Clothing for the Next Generation", 28th February – 2nd March 2023, UWE, Bristol, UK.
4. Prasanta Das, Manas Datta Roy, and Subrata Ghosh, "Possibility of development of natural fibre as a material for medical implantable device", 3rd International Conference on "Emerging Trends in Traditional & Technical Textiles" held at NIT Jalandhar during 28th – 30th April 2023.
5. Prasanta Das, Manas Datta Roy, and Subrata Ghosh, "Development of hydrophobicity with antibacterial property on silk fabric by treated with chitosan and silica nanoparticle", 34th National Convention of Textile Engineers and National Seminar on "Innovative Textile Materials", Organized by The Institution of Engineers (India), the Kanpur local centre in association with the Textile Association (India) Uttar Pradesh, September 10-11th. 2022.
6. Prasanta Das, Subrata Ghosh, and Manas Datta Roy, "Creation of Superhydrophobic Surfaces on Natural Textile Material by utilizing Silica Sol Nanoparticles and Hydrolyzed Hexadecyltrimethoxysilane (HDTMS)", International conference on "Recent Developments on Materials, Reliability, Safety, and Environmental issues" held at NIT Jalandhar during June 25-27th, 2021.
7. Aditi Bahal, Saptaparni Chanda, Shukla Ghosh, Prasanta Das and Debasish Das, "Studies on development of natural insect repellent finishes on textiles and plan of future implementation", 8th ALL INDIA INTER ENGINEERING COLLEGE ACADEMIC MEET 2017 AND INNOVATIVE MODEL COMPETITION FOR A SUSTAINABLE SOCIETY, organized by Forum of Scientists, Engineers and Technologists (FOSET) In association with Guru Nanak Institute of Technology on 19th March, 2017.

RESEARCH & LAB SKILLS

- FTIR Spectroscopy; Image Analysis (Leica)
- Textile Finishing and Functionalization Techniques
- Antibacterial Activity & Culture Handling; Microbiological Sterilization (Autoclave)
- UTM, Tearing & Tensile Strength Tests; Other testing related to Textile

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CERTIFICATIONS & QUALIFICATIONS

- **GATE Qualified** – 2018, 2019, 2025

ACADEMIC LEADERSHIP & CONTRIBUTIONS

- **Training & Placement Coordinator**, Dept. of Textile Engineering, PIET
- **Hostel Secretary**, Mega Boys Hostel, NIT Jalandhar (2020–21)
- **Mess Committee Member**, NIT Jalandhar (2021–22)
- **Organizing Secretary**, Int'l Conf. on *Sustainability in Technical Textiles*, PIET (2024)
- **Technical Committee Member**, Int'l Conf. on Materials, Reliability & Safety, NIT Jalandhar (2021)

EVENTS ORGANIZED

1. **Conference Organizer** – *Sustainability in Technical Textiles: A Path Towards Greener Innovations*, PIET, Dec 2024
2. **Seminar Co-Coordinator** – *Technical Textiles in Diverse Applications*, PIET, May 2025
3. **Committee Member** – Multiple national and international textile conferences (2019– 2024)

TECHNICAL SOFTWARE & TOOLS

- **Analysis Tools:** Origin Pro, Chem Draw, Chem Pro
- **Languages & Platforms:** C, Visual Basic, MS Office (Excel, Word, PowerPoint)

References

Available upon request.